

ON THE BALANCE OF A SET OF RANKS

Morris Zelditch, Jr.
Stanford University

Bo Anderson
Stanford University

May, 1964

TR # 7

ON THE BALANCE OF A SET OF RANKS

1. Introduction.

The purpose of this paper is to develop a theory of the balance of a set of ranks. A theory of rank balance is concerned with situations in which actors, statuses, or collectives are ranked in several different ways which can be regarded as inconsistent. Some examples are: the Negro professional, the wealthy Jew, the impoverished Boston Brahmin, the \$5,000 a year Harvard Ph.D. It is widely supposed that discrepancies of this kind are a source of strain and that individuals will attempt to bring their various ranks into line.

1.1. Homans' Ledger Clerks.

An illustration of this process is reported by Homans (1953, 1957, 1961). The statuses "ledger clerk" and "cash poster" in the billing office of a public utility are evaluated by such criteria as skill, responsibility, variety, income, autonomy, and seniority. The ledger clerk is regarded by all clerks in the office as more skilled, more responsible, more senior, more autonomous, and involving more variety than cash poster. For various historical reasons the two jobs are equal in income. That the ledger clerks are upset by this is shown in their complaints to their union, agitating for increased wages, and in their hostility to management. Cash posters, furthermore, sometimes refuse what the office regards as a "promotion" rather than become ledger clerk.

The "address file clerk" is a third status in the billing office,

lower than cash poster on all criteria by which statuses in the office are ranked. Because they are at the bottom of the office hierarchy the address file clerks are not satisfied with their jobs, but they do not feel unjustly treated and are not as hostile towards management as the ledger clerks.

1.2. Lenski's crystallization problem.

A second illustration is reported by Lenski (1954, 1955). A sample of respondents in Detroit is ordered with respect to occupational prestige, income, education, and ethnicity. An index of discrepancies among these ranks is computed. Among respondents of approximately the same average socio-economic level, those with the greatest discrepancies are the most "liberal" in socio-economic attitudes, the most likely to vote Democratic, the least likely to be sociable, and the most likely to participate in community associations for "utilitarian" purposes (such as "getting ahead"). Lenski interprets "liberalism" as a desire to change the social structure, and low sociability as withdrawal from upsetting situations. The respondents with no discrepancies in rank are called "crystallized".

1.3. Definition of Problem.

In general such situations have the following characteristics:

- 1) Actors, statuses, collectives, or other elements of a social system S may be ordered in k distinct ways according to criteria I_1, I_2, \dots, I_k .

- 2) Standing on a criterion r_i is an evaluated characteristic in S . This means that members of S are differentially evaluated in direct proportion to their rank on r_i , and possession of positively evaluated standing on r_i is seen to be desirable in S .
- 3) A member of S who is ordered in the same way with respect to each of his k rankings is said to be balanced; otherwise imbalanced.

One is interested in the behavior of actors with imbalanced ranks and of social systems containing such actors.

Various synonyms for balance are "congruence", "crystallization", "consistency", any of which may be prefixed by either "status", in the scalar sense, or "rank". A synonym for "restoring balance" is "equilibration" of ranks. Interest in rank balance goes back at least to Weber (see, for example, Gerth and Mills, 1946, ch. vii). A fundamental paper on the subject by Benoit-Smullyan appeared in 1944 and since that time a number of investigations have been reported in which discrepancies in ranks have been linked to observable processes ranging from political extremism (of both the right (Lipset, 19) and left (Barber, 19)) to psychosomatic symptoms (Jackson, 1962).

Despite a long history of great interest in the problem the available evidence only weakly confirms the central assumption that imbalanced ranks generate strain and efforts to restore balance. Contradictory results have been obtained, supposedly positive results are sometimes quite inconclusive, and it is often necessary to invent ad hoc principles to explain peculiar results in particular cases. This is due less to the fact that the balance assumption is false, than to the incomplete and very

vague formulation of the theory. Its assumptions have not been made explicit, the scope of the theory has not been clearly defined, several distinct processes have been going under the same name, and many portions of the theory--such as the possible response processes--have not been thought out at all.

In the present paper what is accomplished is only a partial formulation of a theory in progress. We do not even try to explain everything that has gone under the name of rank balance, but even within the scope of what we do intend to explain, the theory is not complete. The theory is narrowly confined in scope to evaluations. If the formulation we suggest is correct, response to imbalanced evaluations depends on a comparison process. But comparison processes are not yet thoroughly understood. There are also evidently more observable response processes than have usually been mentioned in "testing" the theory, but we cannot yet treat them exhaustively. If we are asked to justify such a partial formulation, its principal advantage is that its gaps point to the major unsolved problems of the theory more clearly than no formulation at all. It is therefore a more useful guide to further work.

2. The Stratification of S.

The stratification of a social system S can be thought of in the following way: the elements of S (u_i , for units) each have some general

standing or overall evaluation in \underline{S} (denoted \underline{R}_i) which is determined by some set of criteria $(\underline{r}_1, \underline{r}_2, \dots, \underline{r}_k)$. Since the criteria may vary in importance, a set of weights (w_1, w_2, \dots, w_k) determines how much each criterion contributes to the value of \underline{R}_i . Just how the weighted values are added up is difficult to say, but certainly \underline{R}_i is a monotonically increasing function of them. For simplicity assume that \underline{R}_i is in fact a linear function of \underline{r}_j . For any given \underline{u}_i we have:

$$2.1. \text{ Assumption. } w_1 r_{i1} + w_2 r_{i2} + \dots + w_k r_{ik} = \underline{R}_i$$

There will be an expression like 2.1 for each element in \underline{S} , and the whole set of such expressions describes the system of stratification of \underline{S} as a whole.

Assumption 2.1 says only that overall standing is determined by adding weighted standings on various criteria relevant in \underline{S} . What is important about it is not the linear assumption, which we do not even believe, but the fact that it defines what is relevant and what is not. If standing on a given criterion makes no difference to overall standing in \underline{S} it is not an evaluation, or rank, in \underline{S} .

2.2. Definition. A rank is any value on any criterion, with non-zero weight in \underline{S} or any function of a combination of such values.

In order to apply the theory formulated here one must know, as a

result of observations of \underline{S} , what the relevant evaluations are. Evaluations, which are the only interpretation of \underline{r}_i given in this paper, obviously change from culture to culture so that some ranks may exist in one social system that do not exist in another system, and the relative importance of any rank depends on the standards of particular cultures. Clearly also, from 2.2 it follows that the theory does not describe behavior of any element ranked by criteria not significant to members of \underline{S} .¹

EXAMPLE 2.1: Suppose the prestige of an actor in a community to be determined entirely by occupation and ethnicity, with occupation twice as important as ethnicity. For convenience think of weights as adding to 1.00, so that w_1 (occupation) = .667 and w_2 (ethnicity) = .333. John Doe is a Jewish doctor who has more 5¢ stamps in his house than any other member of the community. To make standings on different criteria commensurable transform them to percentile scores. John Doe is in the 98th percentile of occupational prestige scores in \underline{S} , the 10th percentile of ethnicity scores, and 100th percentile for the number of 5¢ stamps he owns. His overall standing is $(.667)(98) + (.333)(10) + (0.00)(100) = 69.8$

The description of the stratification of \underline{S} as a whole can be conveniently arranged so that there are three distinct arrays: 1) a matrix of the values of each element on each criterion; 2) a vector of the weights; 3) a vector of the values of \underline{R}_1 . Matrix methods are not employed in the present theory and the matrix representation is almost entirely for visual purposes. In particular, in the present state of the art of measurement

¹ Because of this interpretation such phenomena as power, property, money, authority, influence, and so on, are within its scope only to the degree that they are bases of evaluation in \underline{S} . Weber and Benoit-Smullyan, as well as others, believed that if a stratum of actors were wealthy they eventually could, using wealth as a resource, acquire power. This is called a conversion process. There may well be such a tendency, and if so it is important, but it is not described in the present theory. Nor does the present theory either predict or rule out the existence of "power elites". Conversion processes will be examined in a separate publication.

of stratification the numbers used in illustrations are arbitrary. With such qualifications in mind we can visualize overall standings in S as a product of the matrix of values of each element on each criterion post-multiplied by the vector of weights.

EXAMPLE 2.2: Two other actors in John Doe's community are Michael Jones and Edward Smith, an Anglo-Saxon garage mechanic and Negro lawyer respectively. The stratification of S as a whole is an array of all its actors' evaluations, including Jones and Smith, which would look something like:

	Occupational rank	Ethnic rank		Weights	Overall Evaluations
John Doe	98	10	X	<div style="display: inline-block; border-left: 1px solid black; border-right: 1px solid black; padding: 0 10px;"> Occupation .667 Ethnicity .333 </div>	<div style="display: inline-block; border-left: 1px solid black; border-right: 1px solid black; padding: 0 10px;"> .99 - - .53 - - .63 - - </div>
•	•	•			
Michael Jones	30	98			
•	•	•			
•	•	•			
Edward Smith	95	01			
•	•	•			
•	•	•			

Somewhat elliptically, we will refer to the first matrix as the stratification matrix of S, denoted S*.

3. The Balance of a set of ranks.

Balance, consistency, congruence, crystallization, or any similar conception means roughly that a set of ranks of the same element are "all in line." In order to avoid difficult problems of measuring distances between points on a given dimension of rank, or in making distances in some way commensurable in comparing dimensions, we will think of a transformation of S* in which only ordinal position is shown. In that case

the idea of balance or consistency is simply the "like order" of the values for a given element of \underline{S} . The like order of the entries of \underline{S}^* means that every entry in a given row is greater than, the same as, or less than every element in another row with which it is compared.

3.1. Definition. Ranks in the i th row of \underline{S}^* are balanced if and only if every entry in the i th row is greater than, the same as, or less than each corresponding entry in any other row.

EXAMPLE 3.1: Suppose that John Doe, Michael Jones, and Edward Smith were the only actors in \underline{S} . The matrix \underline{S}^* in example 2.2 could be transformed as follows:

	Occupation	Ethnicity
$\underline{S}^* =$	Doe	1
	Smith	2
	Jones	3

No row of the matrix is balanced. Had the first row been 1, 1, the second 2, 2, and the third 3, 3, each row would have been balanced.

3.2. Definition. The stratification matrix \underline{S}^* is balanced if and only if every row in it is balanced.

The fundamental assumptions made in virtually all versions of the theory of rank balance are that imbalanced ranks are unstable and that they generate tension. It is because these assumptions are typical of "balance" theories more generally that we have altered the terminology in this field by adding yet another label (Cf. Berger, Cohen, Snell, and Zelditch, 1962; Heider, 1944, 1946, and 1958).

3.3. Assumption. Balanced ranks are stable.

3.4. Assumption. Imbalanced ranks tend to change until they become balanced.

3.5. Assumption. Imbalanced ranks produce a state of tension.

A balance theory of ranks does not say that all or most or even any imbalanced rank system eventually will be balanced. In empirical social systems other social factors may combine to prevent balance from occurring. The theory does say, however, that in such cases tension will result. As a consequence of 3.5 a system in which change of imbalanced ranks is blocked builds up tension and the process of change, where it occurs, is accompanied by tension until change is complete. The actual form of the tension varies a great deal. It can be described phenomenologically as a feeling of "injustice", or "guilt", or "embarrassment", or "resentment". Anger and hostility often color these emotions. Sometimes the associated emotions are directed, in the sense that their target is some state of affairs that is seen to be responsible for imbalance. Sometimes they are free floating and become displaced in scape-goat reactions or possibly even psychosomatic symptoms. Very little is known about the conditions under which these different kinds of emotions occur or how they affect behavior. (For an excellent discussion of resentment see Scheler, 1961). The particular ways in which change is brought about also vary a great deal.

4. Two Boundary Conditions.

To simplify development of the theory we make the following two

assumptions, without which nothing in the present formulation would be true:

- 4.1. Assumption. Members of S agree on the weights to be given criteria by which they evaluate themselves and others.

- 4.2. Assumption. A member of S has an overall evaluation of himself that is not less positive than the evaluations others have of him.

The import of the first assumption is obvious. The point of the second is that a person might not feel disturbed at receiving, let us say, much less pay than his occupational prestige entitles him to if he has a very low opinion of himself. He might regard it as just that others treat him in a way that normally would be regarded as unjust.

Both boundary conditions would be relaxed in a more comprehensive development of the theory of rank balance, and we regard both as temporary. A completed theory would consider what consequences could be expected in a system that was imbalanced but had no consensus about the relative importance of ranks, or what response to imbalance could be expected from actors who deprecated themselves even more than did others.

5. The comparison process.

If Robinson Crusoe had been a garage mechanic making \$40,000 a year would he have known that he was being overpaid? If he had been paid \$1,000 would he have known he was underpaid? Satisfaction with a given

rank is a relative satisfaction (or deprivation) established by comparison with others like oneself (Durkheim, 18). But if that is so, then it is possible that no rank balancing process is activated because it is possible that an actor does not compare himself to others. We shall refer to this as vacuous balance.

5.1. Definition. A row in S^* is vacuously balanced if it is compared with no other row in S^* .

We then have the very fundamental result that,

5.2. Vacuously balanced ranks are stable.

If a row is not compared with any other row in S^* there is no way to satisfy definition 3.1, so that even though it seems a trivial sense of the term the evaluations are balanced. And in that case they are not likely to change.

Is comparison then sufficient to activate a balance process? It is evident that it is not, since a comparison, even by someone who is not balanced from an outside observer's point of view, might possibly be with another element imbalanced in precisely the same way.

EXAMPLE 5.1. A college professor in a small mid-Western college makes \$5,000 a year. Most of the time he compares himself only with other professors at the same school. He will not discover any discrepancies in his ranks unless they occur within that school.

Insulation situations of this kind are probably fairly common.

5.3. Definition. If a subset of rows in S^* can be arranged to form a new matrix Q^* such that all rows in Q^* are balanced, then Q^* is a balanced subsystem of S^* whether or not S^* itself is balanced.

It should be obvious that,

5.4. If Q^* is a balanced subsystem of S^* and elements of Q^* are compared only with other elements of Q^* , the ranks in Q^* are stable.

Furthermore,

5.5. If an imbalanced matrix S^* is partitioned into submatrices all of which are balanced subsystems and all of which are insulated, the imbalanced matrix S^* is stable.

In order to activate a balancing process, in other words, one must compare oneself with someone else who is not imbalanced in the same way as oneself.

But even imbalanced comparisons are not sufficient to activate a balancing process, and in fact our knowledge of the activating conditions is incomplete. This is because not every comparison that occurs is relatively depriving or guilt-inducing, the kinds of comparisons that seem to underlie rank balance processes.

EXAMPLE 5.2. An Italian-born immigrant who has become rich compares himself with an Anglo-Saxon who is rich. Perhaps he discovers that he has been refused admission to a well-reputed club of which the Anglo-Saxon is a member. He may think, "Why, if I make as much as he does, don't I get treated as if I were just as good?" But suppose he compares himself to an Italian immigrant who has not done so well as he. He may think, "I'm not doing so badly, compared to some Italians like myself."

The present theory is therefore indeterminate until a better understanding of the activating conditions of the process is possible.

6. Homans' theory of investment, cost, and profit.

The indeterminacy of the comparison process is to some extent reduced in Homans' theory of social justice (1961). Borrowing some concepts from economics, Homans treats some ranks as investments. A person with high education has spent time and money to get this rank. Seniority in an organization can also be seen as an investment, since to get high seniority a person has patiently labored in subordinate positions over a long period. Some ranks, like income and prestige, are rewards.

Such aspects of a person's behavior as responsibility (taking blame, working long hours) are in Homans' theory costs. Profit, finally, can be defined as the difference between rewards and costs.

The principle of social justice asserts that:

- 6.1. A person will be upset if there is a lack of proportionality between his investments and his profits.

In order to find out whether profits are proportional to investments a person must compare himself with other people some of whom have and some of whom have not made the investments he has made. Intuitively it seems likely that he will focus attention on the ranks that represent investments and expect profits to match. Thus, comparing himself with a person of lower education but the same pay, he is likely to say, "Why don't I get better paid" rather than, "I am doing rather well, because compared to others with the same pay I have more education."

* Starred sections may be omitted without interrupting the development of the theory.

- 6.2 A person is more likely to focus attention in a comparison on those ranks that represent investments than those that do not.

If it were not for the fact that some ranks are hard to conceive of as investments or rewards this would be a determinate solution. Homans treats ethnicity and sex, for instance, as investments (Homans, 1961, p. 236) but this seems a rather dubious stretching of the concept. Possibly age can be treated as an investment, because it is likely to be roughly correlated with seniority and training, which are investments. But Homans' idea, while useful in many cases, does not seem to be a general solution.

7. System Reference Problems.

So far the possible units and systems that may be "mixed" in one stratification matrix have been left without restriction. But this permits some rather nonsensical statements which we would like to rule out of the theory.

EXAMPLE 7.1. The ranks doctor, father are compared with the ranks carpenter, father. The first actor is higher than the second on occupational rank, but the same on his "family" rank.

EXAMPLE 7.2. The ranks priest, Catholic are compared with the ranks bishop, Catholic. The first actor is lower than the second on rank within the church, but the same on his other rank.

It is not reasonable to argue that father and Catholic are not ranks, since within some systems of reference they are. But it is reasonable to argue that, at least sometimes, shifting levels of reference change

the meaning of a comparison. This will occur particularly when a rank that differentiates members of a system does not differentiate the members of a subsystem, as when the Ph.D. does not differentiate assistant professor from professor in a faculty most of whose members have the degree.

That confusion over shifting system references is not more common is partly due to the fact that ranks in fact shift rather readily.²

EXAMPLE 7.3. The factory s is in the community S, within which ethnic subgroups, x, y, and z live. Occupational levels manager, supervisor, worker may be differentially evaluated in s by such criteria as relative importance to production, relative responsibility, relative knowledge. Ethnic groups may be evaluated within S by such criteria as degree of assimilation, how recently immigrated, average education. Within s one basis on which actors are evaluated and allocated to occupational levels is their ethnic rank in S (Collins, 1946).

EXAMPLE 7.4. The mining company s in the community S contains some workers who are officials in the union u and some who are important in community politics. Supervisors, mining engineers, and workers in the company treat workers who are officials or politicians with more respect than they do other workers (Observed by Anderson during field work in a Swedish community).

To rule out nonsensical comparisons it is sufficient to require that the stratification matrix S^* represent one level of system only; or

² The readiness with which bases of evaluation shift about partly accounts for the high degree of consistency in ranks frequently observed (Landecker, 1961). If income is a basis of evaluating occupational prestige, and if increasing wealth is a basis of increasing prestige of an ethnic group, and finally if occupation, income, and ethnicity are bases of evaluating an actor's "community standing", it is not surprising that his various ranks to some degree correlate.

equivalently that its units all be of one level. Because this sounds rather restrictive, in view of the interpenetration that is characteristic of ranks, it is desirable to show that the rule is in fact fairly flexible. It can also be shown that the rule is only an application of assumption

2.1. There are three cases of interest:

Case 1. Criteria in one system are also criteria in another system or at another level.

In this case no problems arise. So long as the criterion is a determinant of evaluations in either system at either level, assumption 2.1 is satisfied. No particular rule is necessary.

Case 2. Criteria at one level of system are not criteria at another level, but overall evaluations at the one level are criteria at the other. EXAMPLE: Occupations may be ranked in part for the way in which, in a given system such as the factory s , their relative contribution to total output is evaluated; actors in the community may be evaluated in part for their occupations.

In the second case, in order to satisfy assumption 2.1 the overall evaluations at level s must appear as criteria in the stratification matrix at level $s + 1$ and these overall evaluations must actually be among the determinants of overall evaluations at level $s + 1$. This is equivalent to applying the rule of one level. The rule is not very restrictive since evaluations in one system are in fact shifting to the other.

Case 3. The criterion r_i determines evaluations R_i at level s but neither r_i nor R_i are relevant to overall evaluation at level $s + 1$ (or, for that matter, $s - 1$).

In the third case it is not possible to satisfy assumption 2.1 if levels are shifted. If assumption 2.1 is not satisfied at least one of the ranks compared is not relevant or significant. If at least one of the ranks compared is not relevant no rank imbalance is created. If no imbalance is created no question of stability of ranks arises.

Expressing the rule in another way,

- 7.1. A rank r_i from the matrix g^* , where g is a subsystem or subgroup of S , is a rank also in the matrix S^* if and only if
1. r_i is also among the criteria of overall evaluation in S
 2. or some function of r_i , $f(r_i)$, is among the criteria of overall evaluation in S .

But having ruled out comparisons that shift level, we have not ruled out every possible absurd comparison. Consider

EXAMPLE 7.4. On a fishing trip with a graduate student, a professor discovers that he has been outperformed by the student. He compares the ranks professor, novice fly-fisherman with the ranks graduate student, expert fly-fisherman.

Our theory apparently permits the conclusion that the professor is disturbed; in fact it permits the conclusion that every actor wants to be balanced on every possible basis of evaluation whatever the situation. If the number of rank-dimensions in S is very large probably every actor will be "out of line" on at least one of these dimensions. Hence every actor would at some time or other be disturbed.

Thought not a problem of levels, the university and the fishing trip are another example of shifting systems of reference. It is not likely that the professor in example 7.4 is much disturbed because his incompetence as a fly-fisherman does not much threaten his competence as a professor.

One does not transport ranks from one system to another unless the bases of evaluation in the two systems have something in common. Hence we have the rule that

7.2. A mixed matrix \underline{s}^* that is formed of some ranks $r(\underline{s}_1)$ and some ranks $r(\underline{s}_2)$, where \underline{s}_1 and \underline{s}_2 are both subsystems or subgroups in \underline{S} , is a stratification matrix in \underline{S} if and only if \underline{s}_1^* and \underline{s}_2^* have at least one rank in common.

If competence as a fly-fisherman involved some of the same abilities as competence as a professor then the two evaluations would be relevant to each other and the system in example 7.4 would be imbalanced.

8. Role Differentiation.

Adams (1954) has applied the rank-balance theory to a situation of the following kind.

EXAMPLE 8.1. An air-crew commander and pilot, a major, with 7 years flight experience, but not the most popular member of his crew, is compared with his co-pilot, a captain, with 4 years flight experience, who is the most popular member of his crew.

It is questionable that such a comparison produces an imbalance. If the roles of task leader and expressive leader become differentiated, does it follow from the theory of rank balance that the group is imbalanced? If such a result were to follow from the theory its predictions would probably often be wrong.

When roles become differentiated, what happens is that actors do not compare the ways in which they, as actors, are evaluated. What they compare is the several ways in which their roles are evaluated.

EXAMPLE 8.2. Dr. Smith is a surgeon. As an anaesthetist he is not so competent as Dr. Jones, a certified anaesthesiologist. During surgery it is Jones' job to gas and Smith's job to cut. The status of surgeon is, in the hospital, regarded as the more responsible, the more skilled, it has more prestige, it has more income.

several actors may restore balance at the same time but not necessarily to the same effect, no micro-process alone is sufficient to restore balance and the macro-process is often more unstable than would be inferred from any single micro-process.

9.2 No balance-restoring behavior of u_i is sufficient to balance S .

EXAMPLE 9.2. Union U is an old, respected, and highly skilled craft union while union V is a new upstart, mostly of moderately skilled workers, the dynamic leadership of which has obtained a substantial wage increase that equals U 's wage level. Assigning North-Hatt scores and wages arbitrarily, we have to begin with:

<u>Unions</u>	<u>Ranks</u>	
	<u>Prestige</u>	<u>Wage Level</u>
<u>U</u>	67	\$4.50/hr.
<u>V</u>	60	\$4.50/hr.

There are two micro-processes, one from U and one from V 's point of view:

	<u>Union U's micro-process</u>	<u>Union V's micro-process</u>
<u>Time 0.</u>	U has ranks 67, \$4.50	V has ranks 60, \$4.50
<u>Time 1.</u>	Members of U compare themselves with V .	Members of V compare themselves with U .
<u>Time 2.</u>	Members of U feel relatively deprived, underpaid	Members of V feel relatively deprived, not sufficiently respected
<u>Time 3.</u>	Union U agitates for increase in wages to maintain wage differential	Union V conducts campaign to change its public image and close prestige differential
<u>Time 4.</u>	Union U succeeds in increasing wages to \$5.00/hr.	Union V succeeds in raising prestige to a score of 67

Assuming as we have that each succeeds in raising its lower rank,

each could have restored balance had the other not altered its own ranks. But instead, we have

		<u>Ranks</u>	
		<u>Prestige</u>	<u>Wage Level</u>
<u>U</u>	Unions	67	\$5.00
<u>V</u>		67	\$4.50

which is still not balanced.

9.1 and 9.2 may be called spread of state theorems. A third spread of state phenomenon is the rebuff process.

EXAMPLE 9.3. Giovanni Cicci, a very wealthy Italian-born immigrant, moves into old-American neighborhood s, puts his child in private school, applies for admission to the country club, and in other ways tries to improve his style of life and status honor so that it is more in line with his income. But he finds that his neighbors do not visit much, his children do not find very many friends in the new school, he is not admitted to the country club, and in general his Italian origin is not easily left behind.

What is important in this case is that ego himself would have felt the imbalance of ethnic and income ranks very much less or not at all if it were not for the response of alters. Probably they are responding not only to Cicci's rank itself, but also to his ambition to be one of them. In any case their response makes apparent what might not have been so apparent, that his ethnic rank is not so easily brought into line. Although essentially a secondary process, rebuff can therefore have an important bearing on the indeterminacy described in section 4. Where Cicci had not felt relative deprivation before, he might now. From the point of view of alter, it seems likely that rebuff will occur whenever ego's

effort to balance ranks causes alter to lose rank. This might either be through contagion, where associating with ego means a loss of rank for alter, or through depreciation of a rank, as where alter's "club", his neighborhood, etc. are less valued because of their changing composition. (see pages 33-34).

10. Observable Response Processes.

The least satisfactory part of the theory of rank balance is its account of how balance is restored. All that it says so far is that, once comparison activates the process, imbalance is disturbing and an attempt will be made to restore balance; how is unclear. The most commonly mentioned mechanisms are mobility and revolution. In Benoit-Smullyan, for example, an actor who is imbalanced first attempts to raise his lower ranks. If blocked, he then turns to radical, extremist protest directed against the rank structure itself. What may be called a Benoit-Smullyan response process is illustrated in example 10.1.

EXAMPLE 10.1 In the early 18th century, the French Bourgeoisie, rapidly increasing in wealth, were able to buy army commissions and judiciary posts from the crown. They did so wherever they could because such statuses were noble, allowing the bourgeoisie to convert income into status honor. Because these statuses were becoming less and less certain signs of noble origin, and hence were depreciating in value, the nobility forced the crown to stop their sale to the bourgeoisie. The bourgeoisie then became revolutionary (Barber, 19).

If this were the process actually to be expected, the only difficult question would be: what determines "blocking"? Even this question is not very difficult, since probably the most important conditions are

either that ego's lower rank is ascribed or that ego's mobility causes alter to decrease in rank. But the matter is not nearly so simple. Lenski has shown that some inconsistencies retreat into isolation (195). Frazier has shown that some retreat instead into insulation (Frazier, 19). Even if inconsistencies do not withdraw they do not necessarily raise their lower ranks; for Fenchel, Monderer, and Hartley (19) found some actors who lowered their higher ranks. Furthermore, some actors become radical without waiting for alter to block their mobility. Lipset has argued that ultra-Americanism, as a factor in radical right behavior, is essentially a way of claiming higher ethnic rank (Lipset, 19). In fact the politics of rank imbalance have not emerged very clearly as yet. Sometimes it is left politics, sometimes right politics, sometimes a curious blend of both that is found (Anderson and Zelditch, 1964).

That isolation or insulation are responses to imbalance follows from the fact that it is comparison that activates the balance process. Hence role-differentiation too must be counted a possible response, since any factor that is an activating condition of imbalance is also a possible response to it. The possible withdrawal responses are:

10.1. Classification.

1. Isolation is a response to imbalance in which u_i is compared with no other u_j in S^* .
2. Insulation is a response to imbalance in which u_i is compared only with those u_j 's in S^* which are not imbalanced with u_i .
3. Role-differentiation is a response to imbalance in which actors compare themselves only at the level of statuses which are themselves balanced.

The definition of insulation is somewhat deceptive because it conceals two rather different responses. In one an actor compares himself only with other actors having the same imbalance, as well-to-do Negroes might withdraw into a community in which they encounter only other middle-class Negroes. In the other, an actor compares himself only with other actors among whom one of his imbalanced ranks is not a significant rank, as a well-to-do Negro might become a member of the Negro community as a whole, but avoid the white community. In the latter case his color is only a membership criterion; within the community itself it is not a rank.³ So long as he were granted deference within the community for his wealth, he would not be imbalanced. Probably one would find him to be an Uncle Tom leader--a leader because of respect for his wealth, an Uncle Tom because he would find that any intrusion into the white community upset his balance.

Particularly the latter type of insulation deserves careful investigation, but as a matter of fact no withdrawal mechanism has been sufficiently investigated to be able to say what conditions determine them. For the moment, though we cannot say why, suppose that none of them occur: how will an actor try to balance his ranks then? Very probably an attempt to change his individual ranks is more likely than an effort to change the whole rank structure of S, but is it true, as commonly supposed, that he

³This ignores the fact that color differences are in fact ranks within the Negro community, since the point is not much affected by this fact.

will first try to raise his lowest ranks? Or is the following example not plausible?

EXAMPLE 10.2. Through some peculiar fluke of past history, Assistant Professor Smith, of university U , has been given a private office. U manages to hire Jones, a very distinguished full professor in the same field as Smith. But, like many universities, U has a space problem and cannot find private office space for Jones. Smith very generously gives up his office to Jones and moves in with two other junior colleagues.

It cannot be supposed that universities are less likely than other organizations to invest rugs, offices, desks, and so on, with rank. What has happened, instead, is that the office can be looked on more as a symbol or cue of another rank, rather than as an independent rank in itself. When there is a question of bringing a rank and its symbol into line, it is easier to see the symbol as changing than the rank it symbolizes. Probably this can be generalized to any situation in which actors in S see a causal relation between two ranks--as they might, for example, in the case of ability and rewards.

10.2. Definition. Let it be supposed in S that r_i is the cause of r_j . Then r_i and r_j are contingent ranks, and r_i is the independent while r_j is the dependent rank.

Our basic assumptions are:

10.3. Assumption. If r_i and r_j are noncontingent imbalanced ranks, whichever rank is lower is raised.

10.4. Assumption. If r_i and r_j are contingent imbalanced ranks, whichever rank is dependent is changed in the direction of balance.

But the question that was asked was: what will an "actor" do? as if only actors were mobile. Any element of S could be mobile, not only actors, and it makes some difference what element is meant. We may define mobility in general to mean:

10.5. Definition. Mobility is the increase or decrease of some rank r_i by any element u_i in S .

For later use, we introduce the classification

10.6. Classification.

1. Mobility of a negligible number of actors is individual mobility.

EXAMPLE 10.3. Zetterberg found that one motive for taking courses in Columbia University's School of General Studies was that a few well-to-do suburban matrons had not completed a college degree and were embarrassed when asked by friends of their husbands': "What school did you graduate from?" In order not to have to respond with their high school they enrolled in an "adult" college where they completed a B.A. (Zetterberg, 19).

2. Mobility of a large number of actors on a given rank r_i is stratum mobility.

EXAMPLE 10.4. Mobility was the principal interest of the 18th century French bourgeoisie. As there were many bourgeoisie buying their way out of the class, we can speak of mobility of a whole stratum.

3. Mobility of a status, collective, or action is re-evaluation.

EXAMPLE 10.5. The way the rank of the status doctor has increased from the 19th to the 20th century is one illustration. Had the French bourgeoisie devoted themselves to improving the prestige of the merchant instead of leaving the status, they would have been another illustration.

Further examples are probably superfluous. But it is worth remarking that mobility of a status, if there are many occupants of the status, is also stratum mobility.

The argument leading to 10.3 and 10.4 somewhat casually assumed that mobility is more likely than revolutionary change in the rank structure. Like Benoit-Smullyan we expect explosive consequences to follow from imbalance only if mobility is "blocked". How is mobility blocked? Ego may be too old to expect to change ranks. Or the rank that must be changed may be an ascribed rank. Or the opportunity structure of S may be limited. Or the rank might be one, like religious denomination or national origin, to which actors are so sentimentally attached that, even were it possible to "pass" for someone of higher rank, ego might not want to convert or assimilate. Or, very important, alter may be willing and able to prevent ego from changing his ranks.

10.7. Definition. Mobility of an element of S is blocked if either actors do not want or expect to be mobile or others can and do act to prevent them from being mobile.

10.8. Assumption. If comparisons remain imbalancing, mobility occurs unless blocked.

Blocking is so defined that so long as ego expects to be mobile, whether actually mobile at a given time or not, he will not become as upset as his imbalance at the moment would lead one to predict. A college-educated white collar worker who, comparing himself with a high-school educated blue collar worker, finds he does not make as much as he should, may not get very upset if he is still very young and expects to make much more in a few years. Only if he expects imbalance to be

a relatively permanent state is he likely to feel its injustice. Thus,

10.9. The less permanent an imbalance is seen to be, the less mobility is blocked.

But suppose mobility were blocked--must the result be revolution?

Revolution is a very complicated idea, probably involving at least:

1) an organized movement; 2) a radical change; 3) a conflict. These three are partly independent, in the sense that organization need not imply radical change or conflict, conflict need not always imply radical change, and so on. Therefore we cannot deal with the question of revolution itself. But if we ask how blocking is related to organization, change, and conflict each in turn we can show only that it is a necessary condition. not that it is sufficient.

Organization itself is a complicated matter, mostly involving factors independent of the theory of rank balance. That is, in order to adequately account for organization of a movement we would have to add assumptions to our theory (about, say, ecology and communication) that are independent of the assumptions we have made so far. Here we do not pretend to be exhaustive. We want to add as few new assumptions as possible, mostly drawing the implications about organization that are inherent in assumptions we have already made.

Not that the question of organization is unimportant, because it is probably related not only to the revolutionary consequences of imbalance but also to its activating conditions. Once organization exists

it may activate many persons who were isolated or insulated, give them social support, make their injustice more real, reinforce the impulse to action, and make them feel more powerful. Probably, therefore, organization has a snowball effect, implying that public expression of discontent is a threshold phenomenon. And once it gathers momentum it can be expected to have a rapidly developing "take-off" period.

Before asking about the formation of a new movement, it must first be observed that it is also possible, even probable, that an existing organization be transformed to new purposes.

EXAMPLE 10.6. Many interpretations of the Nazi movement make it a party appealing particularly to the displaced middle classes (ruined by depression and inflation). But of course it was earlier an anti-bourgeois, anti-establishment party, as well as anti-Weimar.

Whether an existing party becomes transformed seems to depend on at least two conditions: either the existence of a "mass appeal" party, like the Nazi party, which would gravitate to any pool of discontent; or the existence of a single-status association (such as an ethnic club or occupational association) many members of whom come to share a common imbalance. In both cases, what appears to be relevant is that imbalance be a shared experience of a whole stratum. The same factor seems most relevant to the formation of a new organization. It seems reasonable, therefore, to assume:

10.10. Assumption. A blocked stratum has greater tendencies to organize as a movement than blocked individuals.

But in that case blocking alone is not sufficient to produce organization.

If not sufficient, however, it appears to be necessary, because

- 10.11. The more members of an imbalanced stratum that expect to be mobile out of the stratum, the less the tendency of the stratum to become organized.

which seems a reasonable inference from 10.6 and 7.

It is important to see that blocking of individual mobility is not the same as blocking of stratum mobility. That unorganized individuals are blocked does not mean that, when organized, they are also blocked as a stratum. It is perfectly possible that their increased power makes mobility of the whole group possible where mobility as individuals was not. Hence it is possible to have blocked individuals organize, not for change or conflict, but for mobility.

EXAMPLE 10.7: Early unions were often formed by traditional crafts resisting proletarianization. In the United States their interests were early confined to increasing wages and job security, with little desire for major social changes or political revolution.

The impulse to change is not less complicated than the question of organization, and it does not help that the definition of "radical change" is so much more difficult. For a theory of rank balance we shall mean by radical change a redefinition of the system of stratification in S. A redefinition is a change in the importance of the criteria that determine evaluation, or in other words

- 10.12. Definition. Redefinition is a response to imbalance in which the weight vector W is changed.

EXAMPLE 10.8. A poor son of an old Mayflower family lives in a low-rent district of Boston. His neighbors generally regard income as the most important determinant of rank, but he himself emphasizes the importance of lineage and regards income as irrelevant.

The desire to change the rank structure of S has often been thought of as^a radical leftist attitude. Lenski, for example (1954), has supposed that inconsistencies tend to be leftist in their socio-economic attitudes. Of course, Lipset has supposed that they tend to be radically right in their civil liberties attitudes (195), but this does not contradict Lenski, since the two attitudes correlate relatively poorly. The left-right distinction, particularly where it is presumed to be the same as a Democratic-Republican distinction, is probably a bad one for our purposes, but the question of what direction radical change is to take is certainly a meaningful one. It is also a complicated one, because an inconsistent clearly can come to be of the right in two very dissimilar ways. One results from a desire for radical change that faces a declining elite. This process is, roughly: an upper stratum begins to decline either because a rising elite displaces it or society changes in such a way that the stratum loses former ground, and some members of the older elite protest its loss both by defending the importance of its vestiges of rank--say lineage and ethnicity--and by attacking the forces which they hold responsible for their decline--say new elites or the politics of the New Deal and its successors, including moderate Republicanism. This then

leads to attempts at redefinition of the rank structure in a right ("reactionary") rather than left direction, and to hostile aggressive attack on "forces of change". Thus we have the following classification:

10.13. Classification. 1. A redefinition is a right-wing protest if it attempts to increase the importance of an old, established higher rank and decrease the importance of a new rank which it sees as displacing it.

2. A rank-protest is a left-wing protest if it attempts to decrease the importance of an old, established rank which it sees as blocking mobility, and attempts to increase the importance of a new rank with respect to which its members have been relatively recently rising.

But what looks like a radical-right protest may also result, not from a desire for radical change, but from mobility. This process is, roughly: Ego is upwardly mobile, tries to associate with members of the class into which he has risen, is rebuffed, or thinks he is rebuffed, believes this is due to his speech, clothes, attitudes, and other signs of his lower ranks, and therefore tries to change in these respects. This then leads to strict conformity or even overconformity with the beliefs and values of the upper stratum, a symptom of which may be an ultra-conservative political position. A Goldwater Republican is produced.

Because they want to redefine W in contradictory ways conflict of left and right looks inevitable. In fact it is to the pressure for radical change that one often attributes the conflict that supposedly results from blocking. But does radical change necessarily create conflict?

If ego wants to compel others to redefine W in the same way as he himself defines it, change must create conflict. What is problematic is

whether he wants to compel the consent of others. If there is conflict it must be both because ego can change S in no way that does not involve forceful compulsion and because alter resists change. What we will show first is that some alters invariably resist redefinition.

From 10.3 it follows that if ego changes W what he will do is decrease the importance of his lower rank.

10.14. Given: r_i and r_j are noncontingent ranks, r_i is less than r_j , and ego makes some form of change in W. Then ego prefers to decrease w_i and increase w_j .

If, therefore, most others do consent to redefinition, some previously well-established actors in S are suddenly displaced. If ego is imbalanced, so is any alter who compares himself with ego (9.1), but some of these alters are particularly affected because their imbalance is the converse of ego's; that is, if for ego $r_i < r_j$, for alter $r_i > r_j$. For these alters particularly, if w_i is decreased their overall evaluation is decreased, and their own redefinition of W is precisely the opposite of ego's. So some alters will always resist change.

Because it is so generally important to the question of conflict in S, this particular kind of situation deserves careful definition. Alter resists change whenever there is a particular kind of contingent relation (as used in 10.2) between his ranks and ego's which can be called a

zero-sum relation.

10.15.1. Definition. A 0-sum contingent rank r_i is a rank such that ego cannot increase the value of his own rank on r_i without a corresponding decrease of alter's value on r_i .

EXAMPLE 10.8. Russian Jews are an ethnic group of relatively low rank in S . As some of them acquire wealth they move out of neighborhood s , which has rather low evaluation in S , into neighborhood t , occupied by old-Americans and with rather high evaluation in S . Usually the effect is to depreciate the value of t , increasingly so as more Russian Jews invade. Eventually the newcomers succeed to occupancy as the old-Americans flee to new neighborhoods.

Since the value of a neighborhood as a sign of rank depends on the evaluation of the ethnic group which lives in it, a lower group cannot easily increase its own "residential" rank without depreciating that of the older occupants of neighborhoods into which they move. It is likely therefore that alter will in some way resist the change in his own rank. Particularly so since he has moved from a balanced to an imbalanced state.

10.15.2. Assumption. Alter will resist any 0-sum contingent change in rank by ego.

Returning to the main line of argument, what we have so far concluded is that

10.16. Every converse imbalanced actor is deprived of rank by a change in W.

10.17. For every imbalance in S there is a converse imbalance.

Therefore,

10.18. Every redefinition of W to which all actors in S consent is an 0-sum contingent change for some actors in S.

Hence we ought to be able to conclude that conflict is inevitable. For from 10.15, we have that alter will resist the change. But what we actually have is only that conflict is inevitable if ego compels the assent of others; we must still demonstrate that this is ego's only way of changing W, which cannot be demonstrated.

As he could have at any earlier step in the balance process, again ego could retreat. We have stipulated that we will consider what happens given that he does not, but retreat at this stage of the process is a new variant of retreat as defined in 10.1, and is worth separate attention. If at this point ego isolates himself from others he makes his new definition of W an altogether private reaction, but still he has made a radical change (in his own view) of stratification in S. Since evaluations are so peculiarly dependent on how the public grants ones claims, however, ego may want to obtain consent from at least some others. Despite our previous line of argument it still does not follow that conflict occurs because ego might obtain consent from just those who have something to

gain and nothing to lose, and so long as this group insulates itself it is not brought into conflict with those others who have something to lose and nothing to gain. What results, in fact, is probably two subcultures, with opposed redefinitions of W but completely insulated from each other. If they can remain insulated there will be no conflict. There will be conflict only if they are forced into contact, or if either compels consent from some meaningful audience whose evaluations are important to the other.

EXAMPLE 10.9. A "social register" is a well-known way for persons of old lineage and old wealth to protect themselves from the intrusion of nouveaux arrivés, for whom wealth is more important as a determinant of rank than it is for the established lineages. Very often the social register is not only a bar to entrance of the newcomer, it is also a relatively insulated subculture. It is protected from the importance of wealth in the larger society by the fact that it serves to confine interaction so narrowly and because it carries an ideology that denies the importance of the definitions of a larger audience.

Because redefinition has consequences other than conflict it cannot be said that blocking must produce conflict. On the other hand, it can be said that conflict, even conflict due to blocking, can be created in other ways. In fact, in general

10.19, Any O-sum change that does not result in withdrawal results in conflict.

Simply to illustrate, one important case is that in which a mobile stratum attempts to capture perquisites or positions from another stratum which, because there are not enough places to satisfy both, is displaced in the process. Such a process may be called redistribution.

- 10.20. Definition. A redistribution of r_i occurs when a position at a given value of r_i that was held by u_i comes to be held instead by u_j .

Probably redistribution occurs when a whole stratum is mobile but rank is scarce. No social structure is likely to be upset if just a few individuals increase rank, even if rank is scarce. No social structure is likely to be upset even if many individuals increase rank, so long as the number of ranks is expanding.

- 10.21. Let T be the total number of positions at a given level of r_i , and let the stratum w hold most or all of such positions. Unless stratum v is smaller than the number of excess positions, members of v cannot occupy positions at that level unless r_i is redistributed.

No conclusion could be more obvious, but the illustration is nevertheless a good one. Since redistribution is an O-sum change, unless a rising stratum finds some other path to balance conflict must occur.

- 10.22. Assumption: If r_i remains a differentially evaluated characteristic, stratum mobility will lead to conflict in direct proportion to the extent that the higher stratum gets dispossessed when the lower stratum moves up.